



## ABOUT THE SANCTUARY



Designated in 1980, the Channel Islands National Marine Sanctuary (CINMS or sanctuary) consists of an area off the coast of California of approximately 1,252.5 square nautical miles adjacent to the following islands and offshore rocks: San Miguel Island, Santa Cruz Island, Santa Rosa Island, Anacapa Island, Santa Barbara Island, Richardson Rock, and Castle Rock, extending seaward to a distance of six nautical miles. The islands vary in distance from 12 to 40 nautical miles offshore from Santa Barbara and Ventura counties in southern California.

A fertile combination of warm and cool currents in this area results in a great variety of plants and animals including kelp forests, fish and invertebrates, pinnipeds, cetaceans and sea birds. The sanctuary also has a wealth of maritime heritage resources including Chumash Native American artifacts and over 100 historic shipwrecks. Human uses in the area include commercial and recreational fishing, marine wildlife viewing, boating, diving, kayaking, maritime shipping, nearby offshore oil and gas development, research and monitoring, and numerous educational activities.



## MARITIME HERITAGE PROGRAM

### Education and Outreach.

On Saturday August 26, a determined group of Chumash paddlers completed a 20-mile ocean canoe paddle from Channel Islands Harbor to Santa Cruz Island. The 10-hour voyage across the Santa Barbara Channel was safe and successful, beginning at 4:15 am and landing at 2:15 pm to the welcoming cheers and songs of nearly 200 Chumash people. This is the third such crossing since the first historic crossing in 2001 of 'Elye'wun (Chumash for "swordfish"), a traditional Chumash redwood plank canoe, or "tomol."

The tomol crossing event brought together hundreds of Chumash people gathered for two days at Scorpion Anchorage on "Limuw" (Santa Cruz Island), site of a once-thriving Chumash village and now part of the Channel Islands National Park (park). Events on Limuw included a ceremony for the "Brotherhood of the Tomol," honoring ten tomol-builders who in the 1970s resurrected the building of these traditional canoes. A sunrise ceremony, the singing of Chumash songs, the sharing of many stories, and many joyful reunions of Chumash people with family and friends marked a beautiful gathering focused on Chumash cultural revitalization and the continuance of Chumash maritime heritage.

Honored to be invited to stay on Limuw and experience the two-day island gathering were Mike Murray (Sanctuary Advisory Council Coordinator), John Brooks (National Oceanic and Atmospheric Administration, or NOAA, filmmaker), and Josh Kaye-Carr (Channel Islands Naturalist Corps member).

All came away with a deep appreciation for the Chumash people and culture, and for the need to work closely with the Chumash toward a shared goal of protecting and preserving the natural and cultural resources of the Channel Islands National Marine Sanctuary (sanctuary) and park.

### WINDOW ON THE SANCTUARY



Paddlers crossing the Santa Barbara Channel en route to Limuw.

*Photo: Robert Schwemmer*



## MARITIME HERITAGE PROGRAM CONTINUED

Several sanctuary staff were very involved in the planning and execution of the tomol crossing. Julie Bursek (Sanctuary Education Coordinator) and Kate Peet (Vessel Operations Officer), assisted by Ben Waltenberger (Physical Scientist), were instrumental in event planning and making preparations for NOAA support boat duties. During the crossing Murray and Robert Schwemmer (Sanctuary Maritime Heritage Program Coordinator) provided assistance with safety response and photography, respectively, aboard support vessels.



Hundreds of Chumash people await the landing of the tomol 'Elye'wun. *Photo: Robert Schwemmer.*

Schwemmer and Amy Cale (Sanctuary Web Developer) completed a website for the 2004 tomol crossing that features articles by Roberto Cordero (Chumash Maritime Association) and Georgiana Valoyce Sanchez (Barbareno Chumash Council Elder). The park's Island Views (Vol. 3, 2005-2006) originally published their articles, which are entitled, "Full Circle – Chumash Cross Channel in Tomol to Santa Cruz Island," and "Island Homeland: The Village of Swaxil 2004," respectively. The articles include images Schwemmer captured during the 2004 crossing. You can view the articles on the sanctuary's web site at: <http://www.channelislands.noaa.gov/cr/chumash.html>.

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### Resource Protection

Schwemmer provided data on historic shipwrecks, as well as shipwrecks that pose an environmental threat, for the Safe Seas 2006 drill in August. He worked as an integral component of the environmental team at the Incident Command Center, tracking the simulated oil spill incident on the NOAA Office of Response and Restoration incident news web-page (<http://response.restoration.noaa.gov> - follow the links to "Emergency Response," and then "OR&R's Role in Safe Seas 2006"), and providing up-to-the minute data on cultural and historic resources potentially at risk. Archaeologists were singled out by the Federal on Scene Coordinator as one of the key components in this drill.

### Regional Maritime Heritage Program

From September 18-22, 2006, Robert Schwemmer will join researchers from the Monterey Bay National Marine Sanctuary, National Marine Sanctuary Program (NMSP), and Monterey Bay Aquarium Research Institute (MBARI) to embark on an archaeological investigation of the submerged wreck site of the rigid airship USS Macon and four Curtiss F9C-2 Sparrowhawk aircraft. The USS Macon, a U.S. Navy "dirigible," was lost during severe weather offshore of Point Sur, California over 71 years ago (February 12, 1935) during a routine flight from the Channel Islands to its home base at Moffett airfield.

During the expedition researchers working from MBARI's research vessel Western Flyer will deploy the remotely operated vehicle (ROV) Tiburon to conduct a systematic, deepwater, visual survey of site features. The researchers will then use high-definition videotape and still imagery from the survey to create a photo-mosaic that records the distribution of site features. The photo-mosaic can be used as a management tool and to support a variety of outreach and education initiatives. A secondary objective of the mission is to identify and record details of specific artifacts, including newly discovered artifacts, and assess their condition. The survey is designed to build upon information gathered by the U.S. Navy and MBARI, who first recorded the aircraft's remains during expeditions in 1990/91. To learn more about the USS Macon 2006 Expedition visit: <http://www.montereybay.noaa.gov/research/macon/2006.html>.





## MARITIME HERITAGE PROGRAM CONTINUED



The R/V *Western Flyer* is MBARI's flagship research vessel and mother ship for the ROV *Tiburon*.

### National Maritime Heritage Program

During June and July of 2006, Schwemmer joined a team of five maritime archaeologists from NOAA's Maritime Heritage Program to embark upon the second maritime heritage expedition to the Northwestern Hawaiian Islands Marine National Monument. Dr. Hans Van Tilburg led the expedition aboard the NOAA ship *Hi'ialakai*. During the 29-day research expedition the team located the complete wreck site of the USS *Saginaw*, a U.S. Navy side-wheel steamer built at Mare Island, California in 1859 and lost at Kure Atoll in 1870. In extremely difficult surf zone conditions the team discovered and photographed all of the major elements of the navy steamer, including bow and stern Parrott rifled pivot guns, 24-pdr broadside howitzers, steam oscillating inclined engine, port and starboard paddlewheel shafts, rim of paddlewheel, anchors, chain locker, steam machinery, boiler tubes, boiler face, rigging components, fasteners, rudder hardware, davits, sounding lead, and other remains.

The team was fortunate enough to make a quick study of the extensive wreck site of the iron hulled sailing ship *Dunnottar Castle*, fortuitously discovered by Kure Atoll refuge staff while the researchers were in the vicinity. The 258-foot British ship was lost on July 15th, 1886, locking herself upright on the hard coralline substrate while bound for California from Australia hauling coal. Large sections of iron hull plate, iron frames, rigging, masts, auxiliary steam boiler, keelson, anchors, windlasses, winches, capstans, davits, rudder and steering gear, cargo hatches, bow sprit, hawse pipes, chain locker, ballast stone, deadeyes, chains, stringers, bitts, ladders, and other remains are firmly encrusted onto the sea bottom. Not even the largest swells can dislodge these heavy components. This is a complete assembly of a late 19th century commercial carrier an incredible sight from the days of the tall ships.



One of the steam piston cylinders of the USS *Saginaw* (left) and the iron hull and still rigging of the *Dunnottar Castle* (right) at Kure Atoll. Photos: Robert Schwemmer.



## MARITIME HERITAGE PROGRAM CONTINUED

The team's work also included a systematic survey, documentation, and interpretation of the whaler Parker (preliminary identification) lost at Kure Atoll in 1842 and the whaler Pearl (discovered in 2004 by marine debris divers from NOAA's Pacific Islands Fisheries Science Center) lost at Pearl and Hermes Atoll in 1822. One additional site recorded at Pearl and Hermes Atoll was an early fishing vessel which presently has not been identified.

For more information on the Northwestern Hawaiian Islands Marine National Monument *Hi'ialakai* Expedition 2006 please go to: <http://sanctuaries.noaa.gov/missions/2006nwhi/welcome.html>.

## EDUCATION AND OUTREACH

### Channel Islands on Film and Video



#### *"Wonders of the West" PBS High Definition Broadcast*

The sanctuary and park coordinated boat logistics and interviews with PBS Las Vegas, KLVX Channel 10, for filming natural resources of the Channel Islands for an upcoming high definition documentary feature called "Wonders of the West." This half-hour show aired on KLVX Channel 10 in Las Vegas, Arizona, and portions of California at the end of August. The show will also be featured nationwide on the high definition PBS channel. Chris Mobley (Sanctuary Superintendent) was interviewed for the show. Representatives of the park and The Nature Conservancy's Santa Cruz Island Project were also interviewed. The film production crew obtained excellent high definition footage of breaching humpback whales, blue whales, common dolphins, and other wildlife. All high definition footage will be available to the sanctuary for future use in education and outreach.

#### *Channel Islands High Definition Film Project*

Chris Mobley, Todd Jacobs (Sanctuary Deputy Superintendent), Laura Francis (Sanctuary Education Coordinator), Julie Bursek (Sanctuary Education Coordinator), LTJG Kate Peet (Sanctuary Operations Officer), and Casey Brennan (Presidential Management Fellow) assisted John Brooks on a three-day underwater high-definition video shoot off of Anacapa, Santa Cruz, and Santa Barbara islands from July 5-7 aboard the Research Vessel (R/V) *Shearwater*. Approximately twenty dedicated days of ship time are required in order to capture about twenty minutes of high-quality underwater footage for a new Channel Islands outreach film for visitors' centers and other venues. The project goal, funding available, is to shoot footage over calendar year 2006 and then to edit and produce it over calendar year 2007.

#### *Anacapa Island Visitors Explore the Kelp Forest with Channel Islands Live!*

In July and August Chris Mobley, Laura Francis, Kate Peet, Dani Lipski (Sanctuary Research Assistant), and Claire Johnson participated in the park's Channel Islands Live! underwater video program. During the program underwater interpreters lead "hikes" through the kelp forest, highlight ocean literacy principles and concepts, kelp forest and rocky reef habitats and species, and discuss the marine protected areas within the sanctuary. During this interactive program visitors observe live video and audio feed, and are able to converse with the diver. A topside naturalist helps interpret the program to the live audience. Visitors watched the program and Channel Islands Naturalist Corps member Debra Herring served as the topside naturalist.

### Special Events

#### Bay Watershed Education and Training (B-WET) 2006 Grant Funds Awarded Locally

The NMSP's B-WET program and the sanctuary are hosting an event at the Ty Warner Sea Center on September 18th to mark the awarding of \$325,000 to support environmental education programs in the Santa Barbara Channel watershed. US Representative Lois Capps will acknowledge and present the 2006 B-WET grant recipients with their grant awards. B-WET provides funds to environmentally based education organizations to provide students, teachers, and communities



## EDUCATION AND OUTREACH CONTINUED

throughout the Santa Barbara Channel watershed with meaningful watershed experiences. The NMSP established the Santa Barbara B-WET education program in 2006 to improve student and teacher environmental stewardship by means of education. Through competitive grants the B-WET program has the opportunity to bring the environment into the classroom, and students into the environment in a meaningful way. For more information on B-WET please visit: <http://sanctuaries.noaa.gov/news/bwet/>.

### *NOAA Teacher At Sea in the Channel Islands National Marine Sanctuary*

This fall the sanctuary is partnering with the NOAA Teacher at Sea Program on board the R/V *Shearwater*. The selected teacher will work alongside researchers on marine reserves ROV monitoring in the sanctuary. The selected teacher will also work with Konstantine Karpov (California Department of Fish and Game Biologist and Principle Investigator) to develop a training manual and program for tacticians on future survey cruises. The purpose of the manual is to define the discrete roles of tacticians (including how to use the ROV), data recorders, ROV pilots, navigation and deck officers. Following an ROV research cruise aboard R/V *Shearwater* October 1-6, 2006, the Teacher At Sea participant will coordinate a one-week training in November with California Department of Fish and Game staff aboard the R/V *Garibaldi*. Also as part of their experience, the teacher will develop an online journal, a mini-unit of lessons, and present activities at regional or national conferences or submit articles for publication in professional education journals. For more information about the NOAA Teacher at Sea Program please visit <http://teacheratsea.noaa.gov/>.

### **Workshops**

#### *September B-WET Evaluation and Constituent Workshops*

The B-WET program is hosting two upcoming workshops in Santa Barbara: a September 7th evaluation workshop, and a September 8th constituent workshop. During the evaluation workshop 2006 B-WET grant recipients will review the requirements for their project evaluation planning and evaluation report, due at the end of the 2006 award. The constituent workshop will cover significant changes in the new 2007 grant cycle and provide prospective applicants with opportunities to ask questions about potential projects, the application process, and the B-WET program in general.

#### *Mapping Oceans and Coasts Geographic Information Systems (GIS) Workshop*

Laura Francis and Julie Bursek helped to coordinate a Mapping Oceans and Coasts GIS workshop for educators from July 12-14th. Ocean Explorers Master Teachers, and staff members from the Center for Image Processing in Education and the Channel Islands National Marine Sanctuary led the workshop. The workshop was held at the Ventura County Superintendent of Schools' Cowan Conference Center in Camarillo, California. Participants received three days of hands-on training in GIS and Global Positioning Systems (GPS) technology, a notebook of classroom ready GIS activities, a copy of the Exploring Data with GIS to Experience Sanctuaries (EDGES) materials, GIS software of their choice (one year site license for ArcView 3.X or ArcView 9.X software or a 10-seat license for MyWorld GIS 4.0), and a trip out to Anacapa Island aboard the R/V *Shearwater*.

#### *Sanctuary Training for Ty Warner Sea Center Staff and Volunteers*

On July 14th Catherine French (Channel Islands Naturalist Corps Volunteer) led a full-day sanctuary training field trip aboard the R/V *Shearwater* for thirty staff members and volunteers from the Santa Barbara Museum of Natural History Ty Warner Sea Center. The purpose of the trip was to introduce participants to sanctuary and park resources, marine protected areas, and research programs. Knowledge gained from this cruise will be utilized as part of the Sea Center Education Programs including K-12 tours and general visitors. The Sea Center has served over 108,000 visitors since it's opening in April 2005.

#### *California Education and the Environment Initiative (EEI) Workshops*

Laura Francis and Julie Bursek represented NOAA education at a California EEI workshop in Santa Barbara from July 17-18, and a second workshop on August 14th. The purpose of the workshops was to bring together environmental





## EDUCATION AND OUTREACH CONTINUED

education providers to adapt existing educational materials to support the California EEI Model Curriculum. The Model Curriculum is intended to provide K-12th grade teachers, schools and districts with standards-based curricular materials, approved by the State Board of Education, which can be used to teach California's Environmental Principles and Concepts (EP&C). The Model Curriculum will be designed as a scope and sequence for teaching the EP&C through a learning continuum from kindergarten through twelfth grade with clearly defined learning objectives that are aligned to California's academic content standards. More information can be found at the following website: <http://www.calepa.ca.gov/Education/EEI/documents/ModelPlan.pdf>

### Conferences

#### *Environmental Systems Research Institute Conference*

Teachers participating in the three-year Ocean Explorers program presented their final projects and participated in a project evaluation session at the Environmental Systems Research Institute conference Education Expo in San Diego in early August. Ocean Explorers is a partnership between the sanctuary and the Center for Image Processing in Education, funded by the National Science Foundation's Information Technology Experiences for Teachers and Students (ITEST) program. Sixty teachers from San Diego to San Francisco participated in this program and developed GIS lessons for their students. Lesson topics included wetlands and water quality, marine mammal migration, tsunamis, and global kelp distribution, among many others. Lessons will be posted on the project web site in the next few months. For more information please visit [www.exploreoceans.org](http://www.exploreoceans.org).

### Multicultural Education For Resource Issues Threatening Oceans (MERITO)

#### *Professional Development Opportunity for Hispanic Serving Educators*

From October 13-14 the sanctuary's MERITO program and the Channel Islands Marine Resource Institute (CIMRI) are partnering to host the Pilot MERITO Academy Workshop for Hispanic Serving Teachers and After School Program Leaders. The MERITO Academy's goal is to increase multicultural students' understanding of watershed and ocean issues through hands-on field and in-class activities, while exposing them to careers in science, and building pride and stewardship towards their sanctuary and local environments. This workshop will focus on Hispanic serving educators of 5th-8th grade students in Santa Barbara and Ventura counties. Some of the workshop benefits include: a \$200 stipend to participating educators, a field trip to Anacapa Island focused on field activity training and island recognition, year round in-class and in the field support, curricula, and materials. For more information and to register visit <http://sanctuaries.noaa.gov/education/teachers/professional.html>.

#### *MERITO Academy Awarded B-WET Funding*

On September 8th California Congresswoman Lois Capps will present MERITO Academy staff with a check for implementing the MERITO Academy. The MERITO Academy is a partnership between the sanctuary and CIMRI, in collaboration with a suite of organizations, including the park, the University of California Marine Science Institute, the Ventura County Superintendent of Schools Office, and Ventura County Migrant Education Office, amongst other organizations. The MERITO Academy provides professional development opportunities for Hispanic Serving teachers and after school program leaders, and year round support for in-class and field activities through its Youth Program component. MERITO Academy content is marine conservation-based, aligned to California Educations Standards, and includes nine field activities. The MERITO Academy's goal is to increase under-served students' understanding of watershed and ocean issues through hands-on field and in-class activities while exposing them to careers in science and building pride and stewardship towards their sanctuary and local environments.

#### *National Sea Grant and National Marine Sanctuary Program Meet in Puerto Rico*

From August 20-25th, Rocio Lozano (CINMS MERITO Program Coordinator) participated in the Program Assessment Team (PAT) for NOAA's National Sea Grant Office. As part of the PAT Lozano helped review the University of Puerto



### EDUCATION AND OUTREACH CONTINUED

Rico Sea Grant Program's (UPRSG) performance over the last four years. Lozano led the review of the Extension, Outreach, Education and Communications components of the program. The UPRSG program has been running since 1986, facing urgent environmental issues in an island with an average of 1,100 habitants per square mile, and four-million tourists per year. UPRSG proved its outstanding ability to connect with key users of marine and costal resources, identify priority issues for sustainable development, and follow through with effective extension and outreach programs and products. Lozano identified several factors that can benefit both the sanctuary and UPRSG if information exchange and/or collaboration is established on issues such as establishing and monitoring marine reserves, connecting with users, and reaching bilingual audiences. Ruperto Chapa (UPSRG Director) expressed his interest in visiting the sanctuary in the near future.

#### **Channel Islands Naturalist Corps (CINC) Volunteer Program**

##### *July and August Whale Watch Vessel Excursions*

The Condor Express, out of Santa Barbara Harbor, offered daily trips with the interpretive assistance of CINC volunteers. CINC volunteers also provided interpretation three times weekly on the Rachel G and Double Dolphin from Santa Barbara Harbor. In addition, CINC volunteers participated on seven Island Packers all-day whale watch trips in July, and seven in August, from Ventura Harbor.

An unusual gray whale sighting occurred on July 7th on the Vanguard, an Island Packers vessel out of Channel Islands Harbor (gray whales are usually found in the Santa Barbara Channel from December through May). Our CINC naturalist and crew determined it was a juvenile gray whale based upon the absence of the large pectoral fins of a humpback, and the presence of the dorsal knobs of a gray whale. It is likely that it may have been feeding on the seafloor a mile and a half out of the harbor entrance.

##### *July and August Island Programs*

CINC island hike volunteers participated in 19 Island Packers trips to Anacapa Island from Channel Islands Harbor in July, and 26 trips in August. CINC islands hike volunteers also participated in five trips to Scorpion Anchorage, Santa Cruz Island in July and 15 trips in August, and one trip to Santa Rosa Island in early July and one in August.

There are 26 CINC volunteers certified to lead hikes on the islands, and 29 are signed up to attend training in the fall.

CINC members continue to work with park staff on the underwater video program, Channel Islands Live!, on Anacapa Island. The program provides public education about the kelp forest, ecology, and marine reserves, with CINC volunteers participating as line tenders, topside naturalists, and divers.

##### *Training*

July 18th CINC monthly meeting: CINC volunteers learned about the history and trends of the Santa Barbara Channel during their July 18th training meeting. The speaker, Tom Murphy, is manager of technology and environmental assessment with the Santa Barbara Air Pollution Control District. He spoke about shipping in the Channel, as well as air quality factors, local meteorology, and oil seeps.

August 15th CINC monthly meeting: On August 15th, Paula Power, an ecologist with Channel Islands National Park, presented a lecture on Santa Cruz Island restoration. She passed on information about island foxes, eagles, eucalyptus trees, and much more; David Kushner (Park Biologist), also presented that evening on kelp forest ecology and the Kelp Forest Monitoring program.

##### *Volunteer Recognition*

A dinner party and harbor cruise was hosted by Island Packers for CINC volunteers on July 14th. They graciously



## EDUCATION AND OUTREACH CONTINUED

donated their boat and offered dinner at cost as appreciation for naturalist interpretation on their whale watch and island trips.

Our yearly Channel Islands Naturalist Corps recognition event will be held on September 21st. It is a joint function with the Park and will honor volunteers from the CINC and other Park volunteers.

### *CINC Research Assistance*

CINC volunteers continued to assist with monthly plankton tows on the R/V *Shearwater* in July. CINC volunteers collect the plankton for a State of California Department of Health Services study of Harmful Algal Blooms (HABs). The volunteers conduct the tows during Plumes and Blooms research cruises, which are part of an ongoing water quality monitoring program in the Santa Barbara Channel (for more information on Plumes and Blooms see p. 9).

In July and August CINC volunteers continued to conduct whale photo ID research activities on the Condor Express and Island Packers whale watch excursion vessels. This research, which involves photographing blue whales' dorsal fins and humpback whales' flukes, helps Cascadia Research Collective (in Olympia, Washington) identify and monitor cetaceans in the Santa Barbara Channel.

### *Public Outreach*

8/2-13/06, Ventura County Fair, Ventura: The first two weeks of August were a busy time for public outreach at the Ventura County Fair. The sanctuary partnered with the park, Santa Monica National Recreation Area, and California State Parks, to bring the public a close-up view of sanctuary and park wildlife. The booth was awarded a 2nd Place ribbon for its educational display.

8/9/06, University of California Santa Barbara (UCSB) Junior Lifeguard Training: On August 9th, the UCSB Junior Lifeguard program took an island trip via Truth Aquatics as part of their yearly training. CINC naturalist Betsy Haygood was on board to perform informal interpretation for the trainees.

9/15-16/06, Santa Barbara Channel Swim: On September 15th and 16th, CINC volunteer Shirley Johnson will be the naturalist aboard Truth Aquatic's vessel Vision, to educate participants in the annual Santa Barbara Channel Swim. Shirley will give a presentation about the sanctuary and park, including the natural and cultural history of the islands and channel. The 2006 event, which is a fundraiser for Santa Barbara Channelkeeper, is a relay-swim from Santa Cruz Island to Santa Barbara Harbor. CINC volunteer Morgan Coffey will be one of the swimmers.

### *Adopt a Business Program (Brochure Distribution)*

CINC volunteers continue to distribute the sanctuary's main brochure, Protecting Your Channel Islands, to local marine and tourism-related businesses, pier locations, local state parks, and campgrounds.

## RESEARCH AND MONITORING

### **Research Accomplishments**

#### *Partnership for Interdisciplinary Studies of Coastal Oceans (PISCO)*

In July, PISCO scientists from UCSB spent four days on R/V *Shearwater* at San Miguel Island, and one day at Santa Cruz Island conducting kelp forest community surveys and marine protected area monitoring. Divers completed visual surveys of invertebrates and algae. PISCO has implemented a large-scale, long-term study of the patterns of community structure in shallow subtidal habitats and the physical and ecological processes responsible for structuring these communities. PISCO's goal is to understand and predict how environmental change (including human impacts and management strategies such as Marine Protected Areas) influences these physical and ecological processes, and how communities





## RESEARCH AND MONITORING CONTINUED

respond to such changes. This cruise allowed us to complete benthic surveys at five out of 35 sites in the sanctuary. For more information please visit: [www.piscoweb.org](http://www.piscoweb.org).

From August 14-23, R/V *Shearwater* served in Monterey Bay National Marine Sanctuary as the diving platform for sanctuary staff and PISCO scientists (from the University of California Santa Cruz) conducting SCUBA surveys. Divers visited 14 sites between San Simeon and Point Lobos, collecting quantitative data on invertebrates, algae, and fishes. They conducted surveys in kelp forests between depths of 20 and 5 meters. These data are part of a long-term, large-scale PISCO monitoring program. Several of the sites are in existing marine protected areas (MPAs), and some will become part of newly designated MPAs. In addition, some of the sites are outside of existing and proposed MPAs, and will serve as a basis for “in vs. out” MPA comparisons.



Photos, left to right: a sea lemon (*Peltodoris nobilis*) next to a giant-spined star (*Pisaster giganteus*); the “head” of the bull kelp (*Nereocystis luetkeana*); a gopher rockfish (*Sebastes carnatus*). Photos: Steve Lonhart, MBNMS.

### *Fish Surveys*

Donna Schroeder and members of the Love Lab at UCSB spent three days in July on R/V *Shearwater* conducting SCUBA surveys for fish at the islands. Schroeder collects data on fish densities, including juvenile rockfish, invertebrates, and kelp cover at sites inside and outside marine reserves at Santa Cruz, Anacapa, and Santa Rosa islands.

### *Plumes and Blooms*

UCSB researchers conducted a Plumes and Blooms (PnB) cruise on board R/V *Shearwater* on July 25, 2006. The researchers collect PnB data approximately every three weeks along a seven-station transect from Santa Rosa to Goleta Point. The main goal of the PnB Project is to develop and optimize algorithms that will be used to relate environmental satellite data to in-situ ocean properties like chlorophyll content, and organic and inorganic particles. Each PnB cruise measures physical characteristics of the water including color and light, as well as temperature, pressure, and density, among many others. Researchers recently added aerosol optical thickness observations to the traditional PnB sampling program to assess the influence of the amount of aerosols on ocean color modeling. The PnB data set has been used extensively in papers and publications, and has enabled several graduate students to complete advanced degrees. For more information please visit: <http://www.icess.ucsb.edu/PnB/Overview.html>.

## VESSEL OPERATIONS

### **Vessel Program Support**

During the current reporting period the R/V *Shearwater* facilitated a number of projects, including:

#### *Education and Outreach*

- Ocean Explorers Project/Center for Image Processing in Education (CIPE) trip for secondary school teachers, 13 July.
- Ty Warner Sea Center trip for staff and volunteer development, 14 July.



### VESSEL OPERATIONS CONTINUED

#### *Social Science Surveys*

- In-house surveys of non-consumptive user and recreational boater patterns, 1-2 July.

#### *Channel Islands High-Definition Film Project*

- The first of many on-going efforts to collect footage for a NOAA Channel Islands high-definition film project, 5-7 July.

#### *Research and Monitoring*

- Dive surveys with scientists from the Love Lab at UCSB, 10-12 July.
- PISCO dive project with UCSB scientists, 17-20 July.
- On-going water quality monitoring in the Santa Barbara Channel with UCSB scientists, 25 July.

#### *Agency Cooperation*

- The R/V *Shearwater* was in Monterey, working with Monterey Bay National Marine Sanctuary staff and University of California Santa Cruz personnel to facilitate more PISCO surveys, 14-23 August. While there, the *Shearwater* and her crew were present for a few photo opportunities with her newly delivered sister ship, the Monterey Bay National Marine Sanctuary's R/V *Fulmar*.
- Although *Shearwater* was scheduled to facilitate NOAA National Data Buoy Center sponsored buoy repairs off of Point Conception from 25-27 July, the trip was cancelled due to problems with the port main engine.

#### *Special Events—Safe Seas 2006*

On August 5th, *Shearwater* headed to San Francisco to participate in the NOAA-wide Safe Seas 2006 exercise, a simulated collision-at-sea/oil spill exercise just outside of the Golden Gate. The week started with nine short courses on a broad range of spill related topics, a Technology Exhibition for media, and a reception for all participants sponsored by the National Marine Sanctuary Foundation. 3000 drift cards were released in three locations representing oil from the two vessels that collided, and oil that had reached the beach within the first 24 hours. In the days immediately following the drill over 1300 drift cards had been reported to the website [www.safeseas.noaa.gov](http://www.safeseas.noaa.gov). News coverage was strong with reporters from across the nation covering events. Media and VIP boats observed field activities. VIPs included VADM Lautenbacher (NOAA Administrator), along with representatives from the U.S. Coast Guard, Department of Interior, the State of California, and industry. In total, 400 participants took part in the drill with 120 from NOAA alone. For additional information please go to the website: [www.safeseas.noaa.gov](http://www.safeseas.noaa.gov).

During the week-long event, *Shearwater* and her crew participated in the following:

- Technical equipment demonstration for members of the media, alongside other NOAA programs, as well as state, federal, and private agencies.
- On-going water quality monitoring efforts through the use of a Conductivity, Temperature, and Depth (CTD) recorder.
- Deployment of a Quick Response Estuarine Buoy (QREB) to collect real time weather/environmental data at the scene of the simulated spill, represented by the release of a green dye into the water at the scheduled time and place of the exercise.
- Deployment of approximately 500 yellow drift cards at the location of the simulated spill to monitor the expected speed and direction of travel of the spilled material on the water's surface.
- Deployment of four drift buoys with GPS transmitters to track the expected travel of the spilled material both on and just below the water's surface.
- On-scene coordination with spill response vessel Pacific Responder and US Air Force C-130 aircraft pilots to facilitate the simulated release of dispersant from the aircraft.
- Fluorometry monitoring to test the efficacy of the dispersant, as addressed in the proposed California Dispersant Plan.



## VESSEL OPERATIONS CONTINUED

### Vessel Maintenance

In early August, R/V *Shearwater* suffered a significant main engine problem and was in the Ventura Boatyard for repairs. *Shearwater* is currently in dry dock, where yard personnel are addressing a few areas in the vessel's hulls that are showing signs of metal fatigue.

### A BIRDSEYE VIEW: WATCHING THE SANCTUARY FROM ABOVE



#### Safety Training

In June, LT Julie Helmers (Sanctuary Pilot), and Ben Waltenberger (Sanctuary Physical Scientist and Co-Pilot), participated in safe water landing training for the sanctuary's SeaWolf aircraft (a flying boat), NOAA 64. Training flights included water landing with the aircraft's power-on, and with its power-off. The training included LT Helmers' annual check flight, which includes water landings in several conditions (normal, glassy, and rough-water, and with the engine-out), and display of aircraft systems knowledge. LT Helmers and Waltenberger also practiced emergency water landings while flying at the sanctuary's survey profile of 500-1000 feet in elevation, at a speed of 110 knots. During these practice flights LT Helmers and Waltenberger work together to ensure all immediate action items are taken care of, including extending flaps, issuing a mayday call, and assuming the brace position, among other actions. Once in the water, they simulate the aircraft taking on water, run through the items they would "ditch" in a real emergency, and evacuation of the aircraft. They repeat this exercise as many times as necessary until they feel comfortable about their roles in an engine-out situation over the ocean.

#### Sanctuary Aerial Monitoring and Spatial Analysis Program, or SAMSAP

In the current reporting period LT Helmers flew NOAA 64 approximately 22 hours for a diversity of missions. Channel Islands-based missions included assisting a sanctuary socioeconomic study, marine reserve enforcement and/or aerial monitoring flights of all five islands in the sanctuary, a debris survey of a vessel casualty, and a post-maintenance flight to ensure that landing gear is functioning properly. During aerial monitoring flights the SeaWolf crew spotted a total of 110 common dolphins, and 12 Risso's dolphins.

#### Special Events—Safe Seas 2006

On August 9th, LT Helmers and Waltenberger participated in the Safe Seas 2006 drill (see Vessel Operations on p. 10 for more information). NOAA 64 was first overhead to conduct a wildlife survey with Jan Roletto (Gulf of the Farallones National Marine Sanctuary Research Coordinator). This survey pinpointed positions of a whale, numerous sea lions, and hundreds of birds within the simulated spill area so that the Incident Command Center could best set the exact location for the US Air Force C-130 aircraft to deploy the simulated "dispersant" in an effort to prevent environmental impacts. The secondary mission of this flight was to establish initial flow of drift cards released from the R/V *Shearwater*. During the dispersant portion of the exercise NOAA 64 hosted David Hall (NMSP Media Coordinator), who filmed the final dispersant run, as well as all vessels participating in the Safe Seas drill. NOAA 64 continued its participation the following day with a final aerial search for drift cards, and an overflight of Devil's Slide Rock to determine the effects of low flights over noise sensitive bird populations.

#### Agency Cooperation

In addition to regular SAMSAP flights, NOAA 64 continues to provide support for homeland security. In fact, LT Helmers and Waltenberger received an award for outstanding support in this capacity. Congratulations!





## MANAGEMENT PLAN REVIEW

July 21st marked the end of a 68-day public comment period on the sanctuary's Draft Management Plan. During the public comment period the sanctuary received: approximately 40 sets of comments from organizations and members of the general public (via email, letter, and audio CD); about ten sets of written comments from state and federal agencies; 18 sets of verbal comments during public hearings; consensus and non-consensus comments from the Sanctuary Advisory Council; written comments from several individual Sanctuary Advisory Council representatives; and group comments from the Advisory Council's Research Activities Panel, Chumash Community Working Group, and Conservation Working Group. In total, this represents approximately 80 sets of comments. Comments range from simple statements in support of or in opposition to a particular proposed regulation change, to extensive and detailed comments on multiple non-regulatory actions and proposed regulation changes. The sanctuary is now reviewing the comments, which marks the first step toward developing a Final Management Plan, including a Final Rule that may revise sanctuary regulations..

### *Ernest F. Hollings Scholar Update*

In July the sanctuary's Hollings interns took advantage of opportunities to learn more about NOAA by visiting National Marine Fisheries Service (NMFS) and National Weather Service offices in southern California. Sarah MacWilliams (Sanctuary Management Plan Specialist) organized these informational exchanges with the generous help of several NMFS staff (Jeremy Rusin, Rosemary Troian, and Christina Fahy), and Eric Boldt (Warning Coordination Meteorologist, National Weather Service Oxnard). The interns who visited NMFS learned about white abalone and sea turtle research and recovery, marine mammal and endangered species permits, the Pacific Fishery Management Council, research and management of tuna fishery interactions with dolphins, rockfish and abalone surveys, evolutionary and population genetics, and Antarctic field research. At the National Weather Service the interns learned about meteorology and weather forecasting. NMFS and National Weather Service staff were very generous in taking time to teach our interns about their work, as well as about their education and career paths.

From July 20-21, five interns from the NMFS Southwest Fishery Science Center met with sanctuary staff to learn about sanctuary research, marine reserves, management, vessel operations, and public participation. The NMFS interns also attended a Sanctuary Advisory Council meeting.

After visiting NOAA Headquarters in Silver Spring, Maryland from July 29 through August 4, the Hollings interns returned to their respective campuses. Management Plan intern Anja Pfinsten (Texas A&M University at Galveston) is currently volunteering at the Flower Garden Banks National Marine Sanctuary in Galveston, Texas. Management Plan intern Desaree Williams (Dominican University of California) completed a poster project that provides a visual display of the types and locations of research conducted within the sanctuary. The poster will be displayed on the R/V *Shearwater*, and at the Ty Warner Sea Center.

## SANCTUARY ADVISORY COUNCIL

Appointments are nearly finalized for six positions on the Sanctuary Advisory Council: public at-large member and alternate, commercial fishing member, tourism member, research member, and conservation alternate. Pending final NOAA approval the new members may be announced at the September 22nd Advisory Council meeting in Santa Barbara. Looking ahead, a fall and winter recruitment process will commence soon and provide opportunities for the public to apply for the following seven open positions: conservation member, research alternate, business member and alternate, public-at-large member, and non-consumptive recreation member and alternate. Please refer all potentially interested parties to Michael Murray, Advisory Council Coordinator, at 805-884-1464 or [michael.murray@noaa.gov](mailto:michael.murray@noaa.gov). Application materials will be available on the sanctuary's web site in late September at <http://channelislands.noaa.gov/sac/main.html>.



## RESOURCE PROTECTION

### Marine Reserves and Marine Conservation Areas

#### *Sanctuary Releases Draft Environmental Impact Statement*

On August 11th, the National Marine Sanctuary Program released the draft environmental impact statement (DEIS) for considering establishing no-take and limited take marine zones in the sanctuary. The zones would build on a network of marine zones established in 2003 by the State of California. The release kicked off a 60-day public comment period during which two public meetings will be held in Ventura and Santa Barbara on September 26 and 28, respectively. Key press articles on the release appeared in the *Los Angeles Times*, *Santa Barbara News-Press*, and *Ventura County Star*. In addition, the story was published widely (over 67 articles) after it was picked up by the Associated Press, including stories in the *New York Times*, *Washington Post*, *Forbes*, *Newsweek*, and others.

On August 24th, Chris Mobley attended a meeting of the California Fish and Game Commission to announce the sanctuary's release of the reserves DEIS. Mobley emphasized that the document's preferred alternative reflects the state's preferred alternative approved by the Fish and Game Commission in 2002, and that for the last seven years the sanctuary has worked in close partnership with the California Department of Fish and Game in all aspects of planning and implementation of the marine protected area network at Channel Islands.

#### *California Fish and Game Commissioners Visit the Sanctuary*

On August 23rd, Chris Mobley accompanied members of the California Fish and Game Commission on a fact finding trip to the Channel Islands. The trip was hosted by the California Department of Fish and Game and the Communication Partnership for Science and the Sea (COMPASS). Other participants include the park and several marine protected area monitoring scientists, including Dr. Steve Gaines, Dr. Jenn Casselle, and Dr. Kevin Lafferty.

### Fishing Vessel Successfully Salvaged from Santa Cruz Island

In early July Sean Hastings (Sanctuary Resource Protection Coordinator) and Ben Waltenberger worked closely with Lisa Symons (National Marine Sanctuary Program) to represent NOAA during a coordinated interagency emergency response to deal with the capsizing and grounding of the 36-foot commercial fishing vessel "5 G's" off of Santa Cruz Island. The U.S. Coast Guard and the park were also key agencies during the response. The vessel was successfully towed back to Santa Barbara Harbor, and damage to the sanctuary and park appears to be minimal. An inquiry is underway to determine the cause of the vessel's sinking, which sadly resulted in the death of two of the three persons aboard the vessel. Interagency coordination in the response went very well, likely as a result of the "tabletop drill" for Safe Seas (see p. 11), which occurred one day before this incident.

## NOAA AND NATIONAL MARINE SANCTUARY PROGRAM NEWS

### Partnerships Promote Enhanced Harmful Algal Bloom (HAB) Monitoring

National Centers for Coastal Ocean Science scientists have developed a new method for rapidly detecting toxins produced by HABs. This new technology may improve the California Department of Health Services (CDHS) capabilities to ensure that local seafood is safe for public harvesting and consumption. University of California Santa Cruz scientists are collaborating with the CDHS to test and incorporate new ways to rapidly screen for harmful algae and their toxins, and develop recommendations for a sustainable, ecosystem-based monitoring plan for the California coastline.

### Marine Science Portal Offers Public Real-Time Access to NOAA Expeditions

On July 17, the National Marine Sanctuary Program and Immersion Presents launched OceansLive.org, a marine science portal that offers live video and special content to educate people of all ages about the ocean, including national marine sanctuaries. In addition to watching live video from research expeditions, the portal's visitors can learn more about oceanography, marine life, conservation and preservation, marine research technologies, and the nation's maritime



heritage. To complement the video broadcasts, the portal offers lesson plans, videos, puzzles, and games based on the marine environment.

### **New Web Service Allow Easy Viewing of Charts**

The NOAA Office of Coast Survey has introduced a new public service called the On-Line Chart Viewer at [www.NauticalCharts.gov/viewer](http://www.NauticalCharts.gov/viewer). The Viewer lets mariners and the public display any of the 1,000-plus nautical charts in the national suite using only an Internet browser. Each chart is updated weekly for Notice to Mariner corrections by NOAA's experienced nautical cartographers. The fast, raster-serving software of the Viewer permits rapid chart display, panning, and zooming. The Viewer can be used for planning and research, as an easy reference document for recreational boaters, and as a quick tool for professional mariners to examine recent changes in their intended routes.

### **Largest Damages Settlement to Date in a National Marine Sanctuary**

The Department of Justice and the Department of Commerce announced that the operators of the container vessel Med Taipei, have agreed to pay the U.S. a \$3.25 million settlement as a result of cargo lost in the Monterey Bay National Marine Sanctuary. This represents the largest damages settlement to date in a national marine sanctuary. Fifteen containers, not adequately secured in rough seas, fell overboard in January 2004 from the Med Taipei into the Sanctuary. The containers' inventory included furniture, tires, plastic items, cyclone fencing, hospital beds, wheel chairs, recycled cardboard, and clothing. The settlement funds will be used for habitat restoration in Monterey Bay National Marine Sanctuary.

### **Management Capacity Training Program in the Eastern Tropical Pacific**

The sanctuary's Laura Francis is helping to represent NOAA in a joint effort with Conservation International to conduct a Marine Protected Area (MPA) Management Capacity Building training in the Eastern Tropical Pacific (ETP). The ETP is the second MPA Management Capacity Training Program pilot site (The South China Sea region was the first pilot, held in December 2005). As part of this project, Francis recently participated in a Sustainable Tourism workshop in Panama. This workshop will set priorities for sustainable tourism in the ETP and confirm training goals, objectives, and commitments for the October 2006 training.

## WHAT'S NEW ON THE WEB

[www.channelislands.noaa.gov](http://www.channelislands.noaa.gov)



**Visit the web pages listed below to see recently updated sections of the CINMS web site.**

Marine reserves information regarding the public release of the Draft EIS is now online @ <http://www.channelislands.noaa.gov/marineres/main.html>

The NOAA Teacher at Sea program has come to the sanctuary, we have designed a mini-site which offers information on the latest research cruises. Check out: <http://www.channelislands.noaa.gov/edu/tas.html>

The sanctuary's personnel page has been updated with new staff biographies and photos. Available @ [http://www.channelislands.noaa.gov/drop\\_down/person.html](http://www.channelislands.noaa.gov/drop_down/person.html)

The Chumash tomol crossing took place on August 26th. Take a look @ <http://www.channelislands.noaa.gov/cr/chumash.html> for new articles and photos from the 2004 tomol crossing.

Don't forget to check out our calendar of events to find out what's happening locally. <http://channelislands.noaa.gov/focus/calendar.html>

### **Upcoming Modifications**

A new home page design is in the approval stage of development to offer a search feature that will allow users to search for content sanctuary-wide.

A slide show featuring new photos taken from the Xantus's murrelet seabird research cruises is in development along with edits to the West Coast Shipwreck Database, the addition of Advisory Council members' photos and bios online, and a marine reserves educational web section are in the final stages of development and set to launch this September, 2006.





## CHANNEL ISLANDS: STORIES FROM THE PAST

### Looking back 123 years ago...

On November 6, 1883 the *Los Angeles Times* featured an article first reported in the *Santa Barbara Independent*, entitled, "Fisheries of Santa Barbara Channel."

"There is no part of the coast of California for three hundred miles where more variety of fish is to be found or in greater quantities, than in what is known as the Canal of Santa Barbara; we believe Vancouver gave to this channel this name. [It was so call by Vizcaino in December 1602. Ed. TIMES]. It includes the coast from Point Concepcion to Ventura and the Islands San Miguel, Santa Rosa, Santa Cruz and Anacapa. The islands are fringed with kelp, so likewise is the main shore. This marine growth gives security and feeding ground for rock cod, red fish, craw fish, smelt, flounder, halibut and many other varieties. During the months of June and July the delicate fish so prized in New Orleans, the pompano, are found in abundance in these waters, and also during the season or summer, the barracuda, the bonita and the albacore are taken, trolling in sail boats. It requires a stiff breeze to decoy them to the pretending sardine. Throwing out the delicacy of the fish, it gives to the pleasure seeker a day of amusement, and might be profit. The trolling for blue fish on the coast of Massachusetts, so yearly enjoyed by Webster, and even in these days by our President Arthur, is quite an example for us to follow. Certainly, it is worth knowing that such pleasure and profit can be found here."

For a complete copy of the article (pdf. format) contact Sarah MacWilliams at [Sarah.MacWilliams@noaa.gov](mailto:Sarah.MacWilliams@noaa.gov).

### SEPTEMBER

*September 12 & 13*

From Shore to Sea Lecture  
John Johnson  
"Santa Rosa Island/French  
Island Research"

*September 17-20, 2006*

California and the World Ocean  
2006 Conference

*September 20 & 27, 2006*

Jean-Michel Cousteau:  
Ocean Adventures  
"America's Underwater  
Treasures"  
Airs at 8 pm on PBS

*September 22, 2006*

Sanctuary Advisory Council  
Meeting (Santa Barbara)  
Casa Las Palmas  
323 E. Cabrillo Blvd.  
Santa Barbara, CA

*September 24, 2006*

Ventura Sea Fest  
Ventura Harbor, 11 am - 5 pm

### OCTOBER

*October 1*

Santa Barbara Zoo Festival  
11 am - 4 pm

*October 7*

Oxnard Multicultural Festival

*October 10 & 11*

From Shore to Sea Lecture  
Russell Galipeau  
Channel Islands National Park:  
A Status Report

*October 14*

Santa Barbara Harbor &  
Seafood Festival  
10 am - 5 pm

### NOVEMBER

*November 2*

CINC Orientation Meeting  
Channel Islands National Park  
6:30 pm

*November 7*

CINC Orientation Meeting  
Chase Palm Park, Santa Barbara  
6:30 pm

*November 10-12*

American Cetacean Society  
10th International Conference  
Ventura

*November 14 & 15*

From Shore to Sea Lecture  
Tom McCormick  
White Abalone Restoration



## CINMS Staff

### Santa Barbara Harbor Office

Christopher Mobley – *Superintendent*  
 Todd Jacobs – *Deputy Superintendent*  
 Amy Cale – *Web Developer*  
 Laura Francis – *Education Coordinator*  
 Sean Hastings – *Resource Protection Coordinator*

LT Julie V. Helmers – *Executive Officer*  
 Charles Lara – *Deckhand*  
 Dani Lipski – *Research Assistant*  
 Sarah MacWilliams – *Management Plan Specialist*

Michael Murray – *Advisory Council and Management Plan Coordinator*  
 Luman Moody – *Vessel Captain*  
 LTJG Kate Peet – *Operations Officer*  
 Robert Schwemmer – *Regional Maritime Heritage Coordinator*  
 Natalie Senyk – *Scientific Advisor*  
 Terrence Shinn – *Vessel Captain*  
 Ben Waltenberger – *Physical Scientist*  
 Rebecca Young – *Inventory/Database Coordinator*

### Ventura County Field Office

Shauna Bingham – *Volunteer Program and Outreach Coordinator*  
 Julie Bursek – *Education Coordinator*  
 Clare Fritzsche – *CINMS Volunteer Program & Administrative Assistant*  
 Lorri Herr – *Program Support Specialist*  
 Rocio Lozano de Knowlton – *MERITO Community Liaison*  
 Tina Reed – *Education and Outreach Administrator*

## CINMS Interns

Daryl Austin – *Education Intern*  
 Allison Chan – *Resource Protection Intern*  
 Shannon Feeney – *Resource Protection Intern*

## NMSP West Coast Region Staff

William Douros – *Regional Superintendent*  
 Matt Brookhart – *Policy Coordinator*  
 Nicoloe Capps – *Management Support Specialist*  
 Dave Lott – *Operations Coordinator*

## NMSP Staff

Columbine Culberg – *Ocean Etiquette Program Manager/Liaison to Aquarium of the Pacific*  
 Claire Johnson – *West Coast Education Liaison*  
 Sarah Marquis – *West Coast Media Coordinator*

## Channel Islands Marine Sanctuary Foundation

Donna Schroeder – *Acting Executive Director*

The Sanctuary Superintendent's Report is produced bi-monthly by the Channel Islands National Marine Sanctuary in conjunction with Sanctuary Advisory Council meetings. To learn more about the sanctuary please visit our web site at:

<http://www.channelislands.noaa.gov/>.

To learn more about the Sanctuary Advisory Council please visit:

<http://www.channelislands.noaa.gov/sac/main.html>.

## The National Marine Sanctuary Program

The Channel Islands National Marine Sanctuary is one of 13 marine sanctuaries in the National Marine Sanctuary Program. This program was established under the National Marine Sanctuaries Act of 1972 which authorizes the Secretary of Commerce to designate as national marine sanctuaries areas of the marine environment or Great Lakes with special national significance due to their conservation, recreational, ecological, historical, scientific, cultural, archeological, educational, or aesthetic qualities. Visit the NMSP web site at:

<http://www.sanctuaries.nos.noaa.gov/>

## Channel Islands National Park

To learn about Channel Islands National Park visit their web site at:

<http://www.nps.gov/chis/homepage.htm>.

## Get Involved and Stay Informed!

To learn how to get involved in the sanctuary visit:

<http://www.channelislands.noaa.gov/focus/involved.html>

Sign up for the CINMS listserv to receive email notices about upcoming sanctuary events, and public meetings of the Sanctuary Advisory Council and its working groups:

<http://www.channelislands.noaa.gov/focus/list.htm>

## Contact Information

### CHANNEL ISLANDS NATIONAL MARINE SANCTUARY

#### Santa Barbara Office

Santa Barbara Harbor  
 113 Harbor Way, Suite 150  
 Santa Barbara, California 93109  
 Phone: (805) 966-7107  
 Fax: (805) 568-1582

#### Oxnard Office

Channel Islands Harbor  
 3600 S. Harbor Blvd., Suite 111  
 Oxnard, California 93035  
 Phone: (805) 382-6149  
 Fax: (805) 382-9791